

ABSTRACT OF THE DISCLOSURE

A sub-micron probe apparatus to be added to an existing probe station. In one embodiment, the probe apparatus includes a course positioning unit to be optionally mounted or added to an existing probe station platform. A fine positioning unit is attached to an arm attached to the course positioning unit. A cantilever having a tip is attached to a support structure attached to the fine positioning unit. The course and fine positioning units are used to place the cantilever and tip over a surface of a device under test (DUT). Motion of the cantilever is detected with a motion sensor. An image of the surface of the DUT may be obtained. In addition, an electrical signal carried in an electrical trace on or near the surface of the DUT can be detected. An electrical signal may also be supplied to the electrical trace on or near the surface of the DUT. The field of vision of an optical imager used to image the DUT at the probe area is not obstructed by the probe apparatus.